THE FIFTH ANNUAL

InCites™ Customer Forum

LEIDEN, NETHERLANDS
2ND, SEPTEMBER 2014

Using InCites for strategic planning and research monitoring in St.Petersburg State University

Olga Moskaleva, Advisor to the Director of Scientific Library
o.moskaleva@spbu.ru

THOMSON REUTERS

Ways to use InCites in St.Petersburg State University

- Development program of St.Petersburg State University
  - Start – 2009 up to 2020
  - Priority Fields
    - Biomedicine & Human Health
    - Computer science
    - Ecology, Environmental & Geosciences
    - Nanotechnology & Materials Science
    - Social Science & Management
- Creating different Reports
- Receiving publication data for grant proposals
- Choosing organizations for research collaboration

Objectives for strategic planning

- Presidential decree N599, 07/05/2012 "On Measures for the implementation of state policy in the field of education and science":
  - 5 Russian HEI are to be in top-100 of university rankings till 2020
  - Share of Russian publications in Web of Science must be 2,44% till 2016
- Thus, main attention is paid to quantity and quality of university research publications, first of all in Web of Science

Choosing Priority Fields

- Priority Fields in Russian Federation
- Existing Competencies in SPbSU
- Analyzing Subject Area Ranking in InCites
- Comparing the publication dynamics of Russia and SPbSU in Citation databases (Web of Science, Scopus, Russian Citation Index) and via InCites Global Comparisons
- Choosing the priority fields for Development Program

SUBJECT AREA RANKING, 2000-2008

Subject Areas 1 - 20 of 197

Sort By: Web of Science Documents

Rank	Subject Area	Times Cited	Web of Science Documents	Average Cites per Document	Journal Actual/Expected Citations	Category Actual/Expected Citations	Average Percentile
1	CHEMISTRY, PHYSICAL	9 473	937	10,11	0,84	0,44	68,24
2	OPTICS	4 563	773	5,90	0,76	0,45	65,41
3	ASTRONOMY & ASTROPHYSICS	9 184	654	14,04	0,83	0,61	60,17
4	PHYSICS, ATOMIC, MOLECULAR & CHEMICAL	6 845	601	11,39	0,72	0,65	52,14
5	PHYSICS, MULTIDI						
6	PHYSICS, CONDEN						
7	CHEMISTRY, MULT						
8	PHYSICS, APPLIED						
9	SPECTROSCOPY						
10	PHYSICS, MATHEM						
11	MATERIALS SCIEN						
12	CHEMISTRY, ORGA						
13	PHYSI						
14	CHEMI						
15	MATHE						
16	PHYSI						

Subject Areas 1 - 20 of 197

Sort By: Average Cites per Document

Rank	Subject Area	Times Cited	Web of Science Documents	Average Cites per Document	Journal Actual/Expected Citations	Category Actual/Expected Citations	Average Percentile
1	GEOGRAPHY, PHYSICAL	1 275	26	49,04	1,73	2,12	39,65
2	TOXICOLOGY	201	5	40,20	1,44	1,57	36,84
3	HEMATOLOGY	276	7	39,43	2,76	1,63	62,72
4	GERONTOLOGY	38	1	38,00	0,77	1,41	21,84
4	GERIATRICS & GERONTOLOGY	38	1	38,00	0,77	1,41	21,84
6	BIODIVERSITY CONSERVATION	233	7	33,29	1,18	1,18	30,99

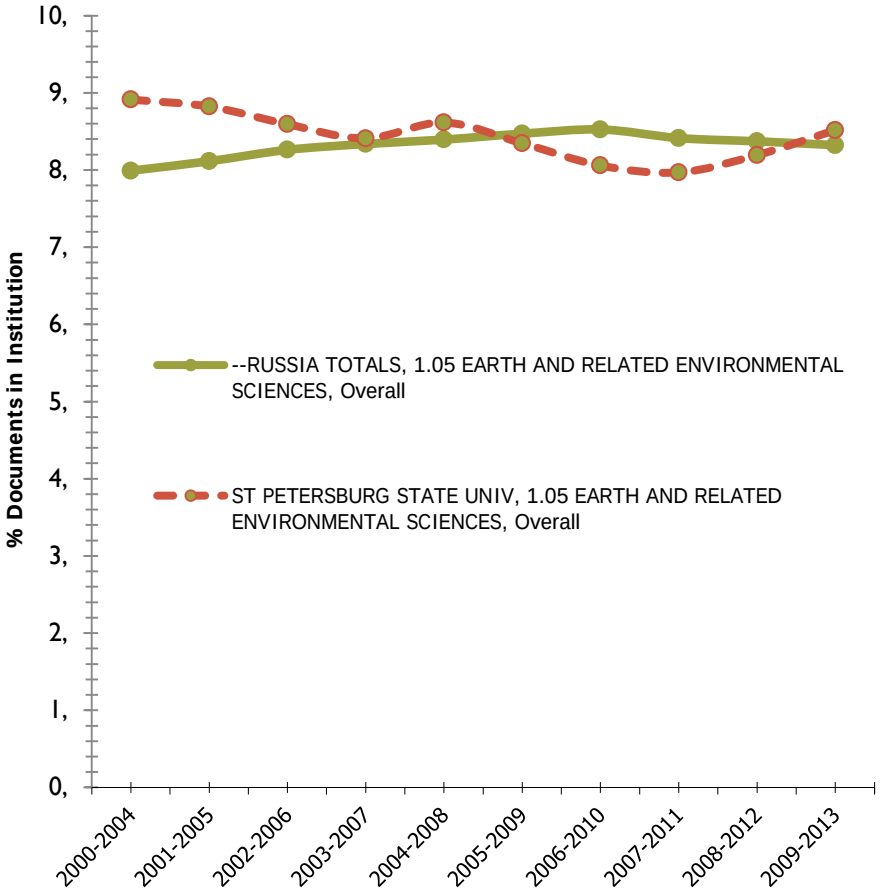
Subject Areas 1 - 20 of 197

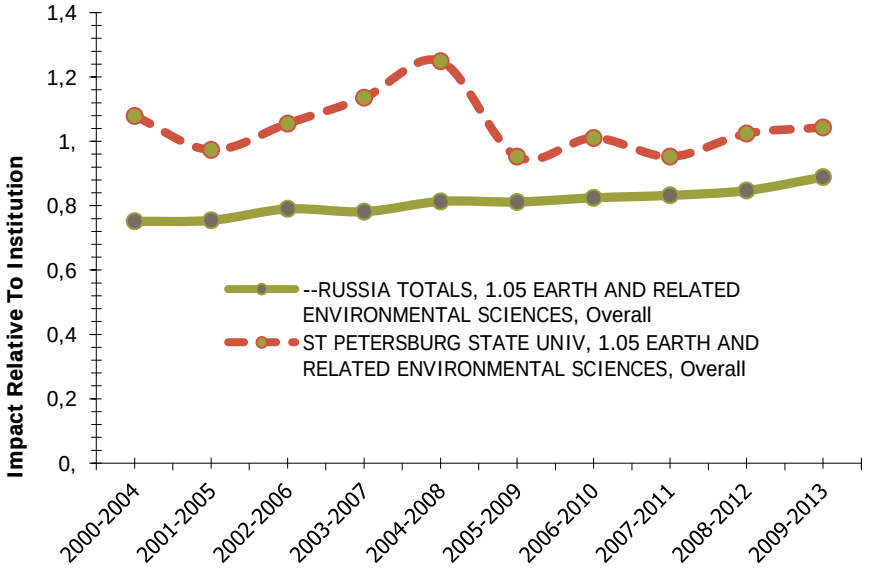
Sort By: Category Actual/Expected Citations

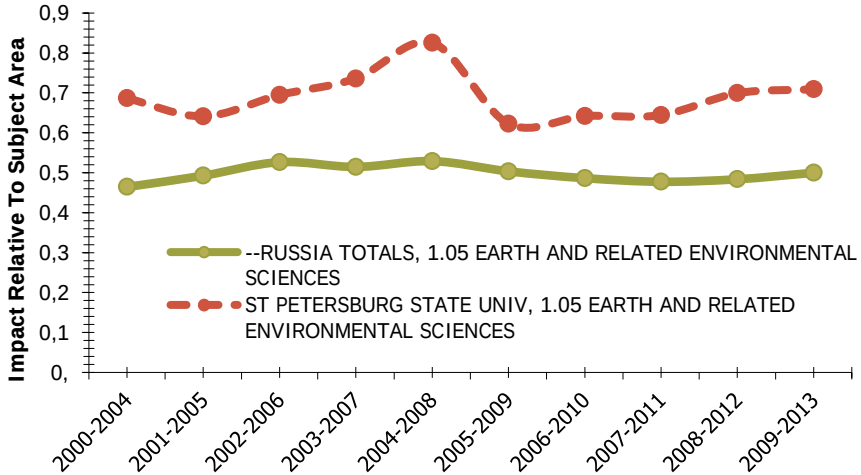
Rank	Subject Area	Times Cited	Web of Science Documents	Average Cites per Document	Journal Actual/Expected Citations	Category Actual/Expected Citations	Average Percentile
1	CHEMISTRY, MEDICINAL	2	1	2,00	10,00	12,50	
2	SOCIAL SCIENCES, INTERDISCIPLINARY	21	1	21,00	1,52	2,19	7,27
3	GEOGRAPHY, PHYSICAL	1 275	26	49,04	1,73	2,12	39,65
4	ENVIRONMENTAL STUDIES	59	2	29,50	1,71	1,91	6,63
5	ONCOLOGY	164	7	23,43	0,75	1,82	39,04
6	HISTORY OF SOCIAL SCIENCES	7	1	7,00	1,72	1,81	2,27
7	LIMNOLOGY	29	1	29,00	1,35	1,75	12,55
8	HEMATOLOGY	276	7	39,43	2,76	1,63	62,72
9	TOXICOLOGY	201	5	40,20	1,44	1,57	36,84
10	PSYCHOLOGY, SOCIAL	77	3	25,67	1,40	1,56	29,10
11	MINING & MINERAL PROCESSING	94	6	15,67	1,77	1,55	24,60
12	DEMOGRAPHY	28	1	28,00	0,62	1,41	21,56
12	FAMILY STUDIES	28	1	28,00	0,62	1,41	21,56
14	GERONTOLOGY	38	1	38,00	0,77	1,41	21,84
14	GERIATRICS & GERONTOLOGY	38	1	38,00	0,77	1,41	21,84
16	OPHTHALMOLOGY	63	4	15,75	1,17	1,26	32,47

Comparing SPbSU & Russian publications

(Global Comparison, 1.05 EARTH AND RELATED ENVIRONMENTAL SCIENCES)

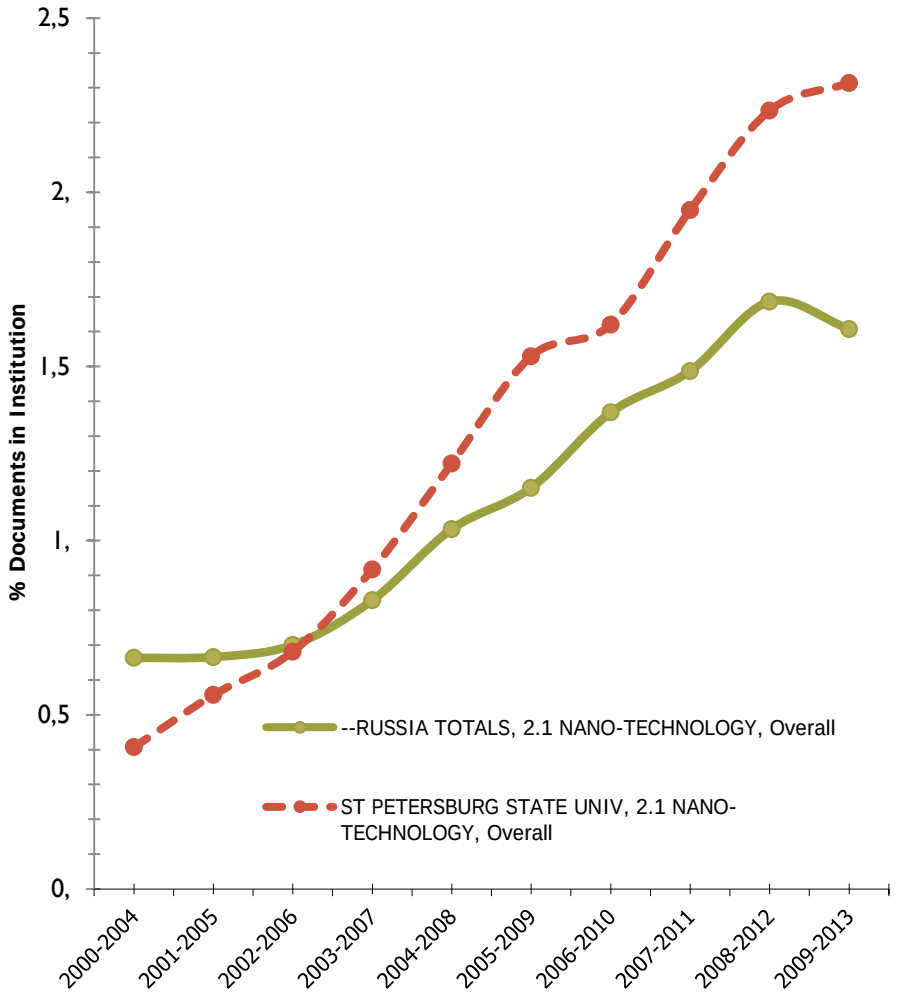


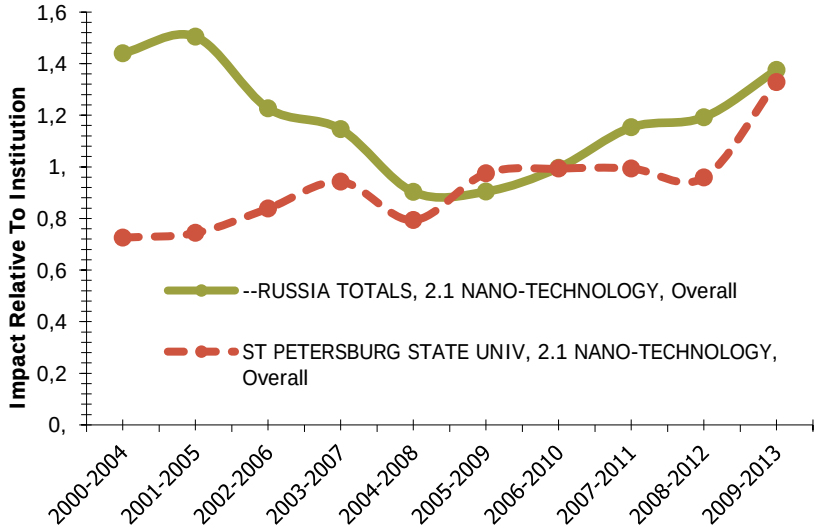


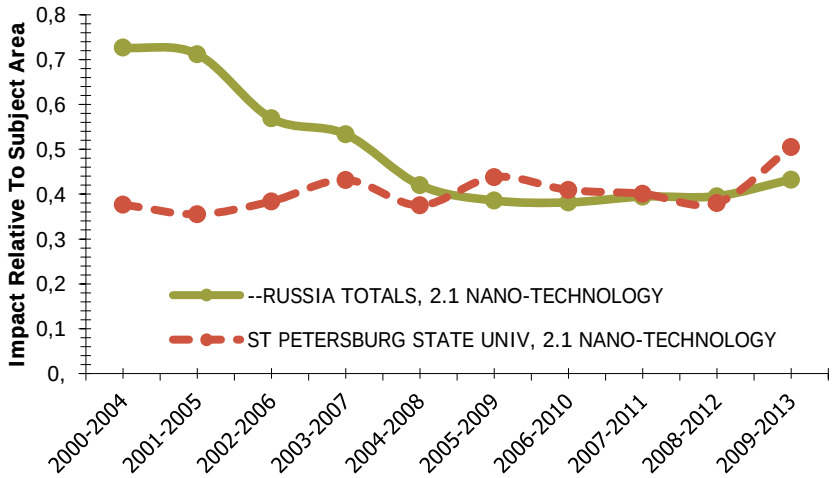


Comparing SPbSU & Russian publications

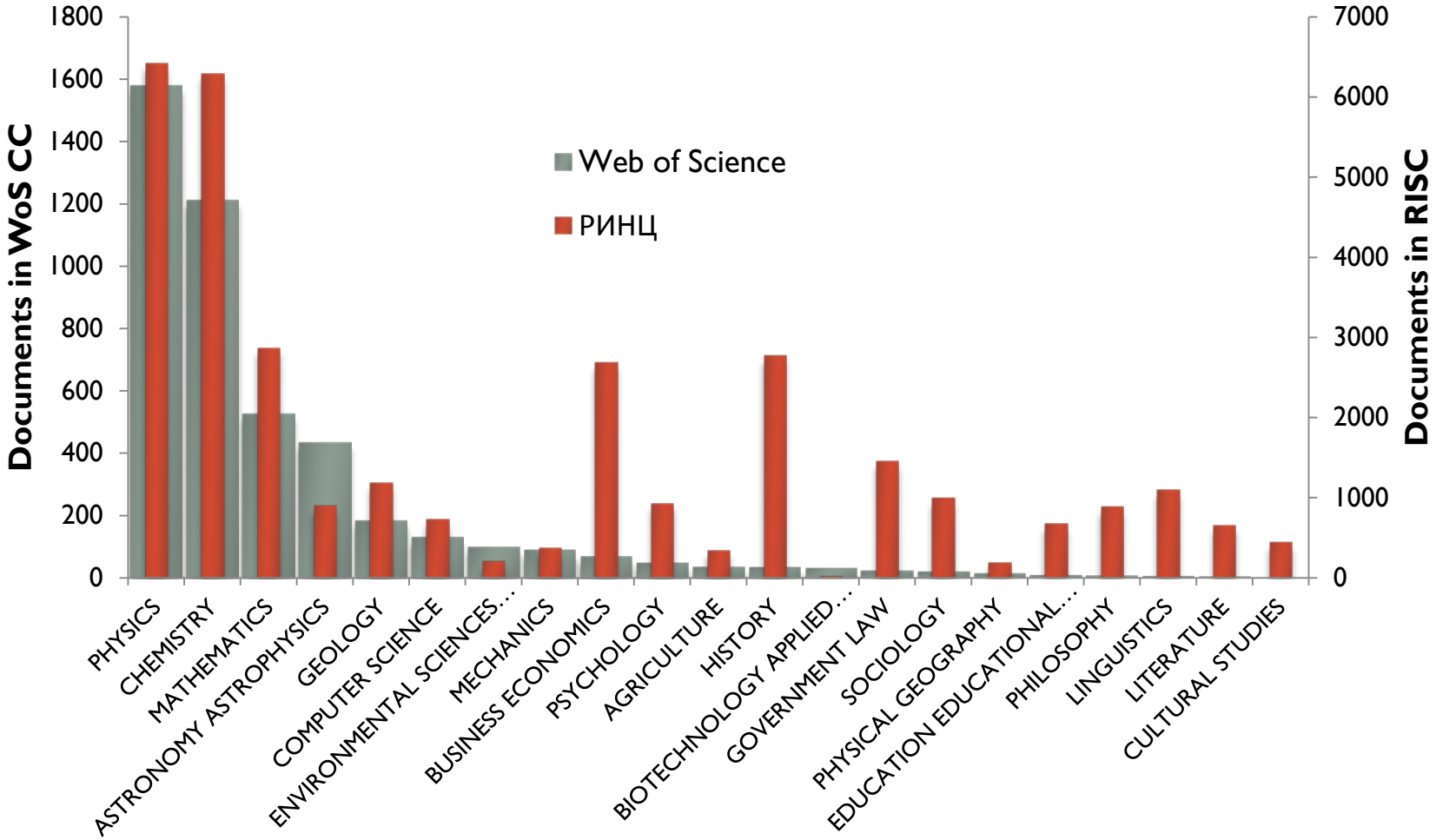
(Global Comparison, 2.1 NANO-TECHNOLOGY)



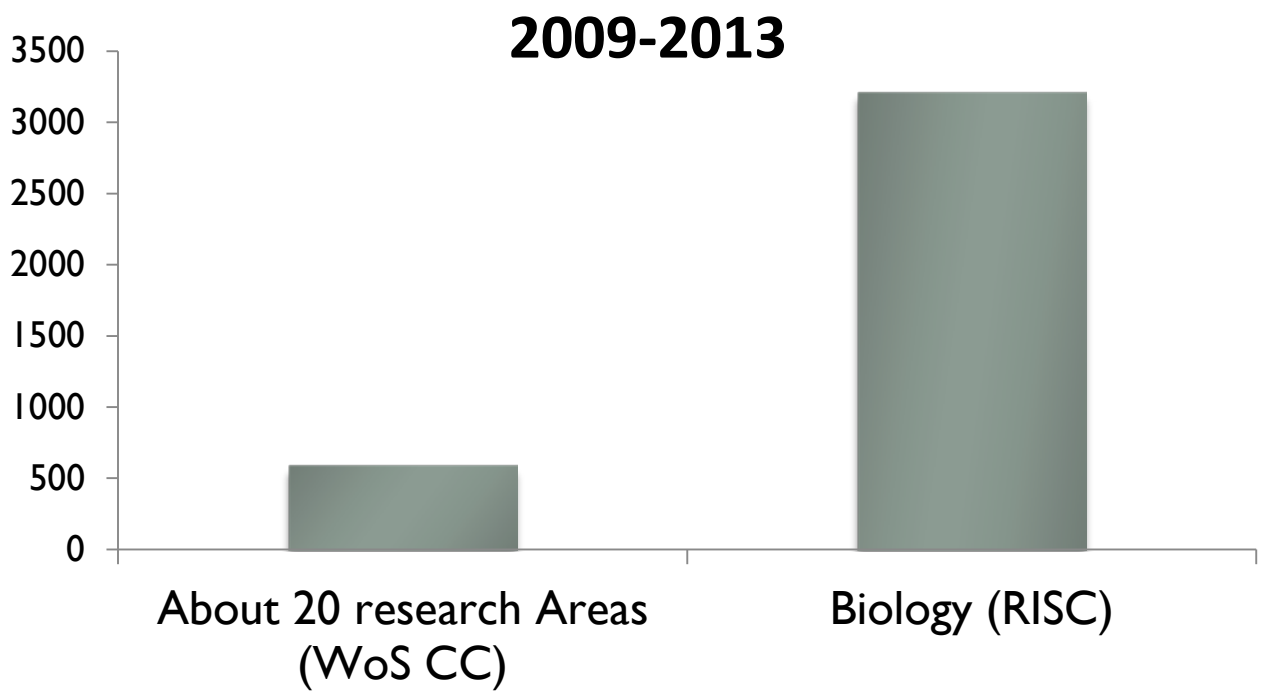




Comparison of SPbSU publications in several research areas in Web of Science CC and RISC (2009-2013)

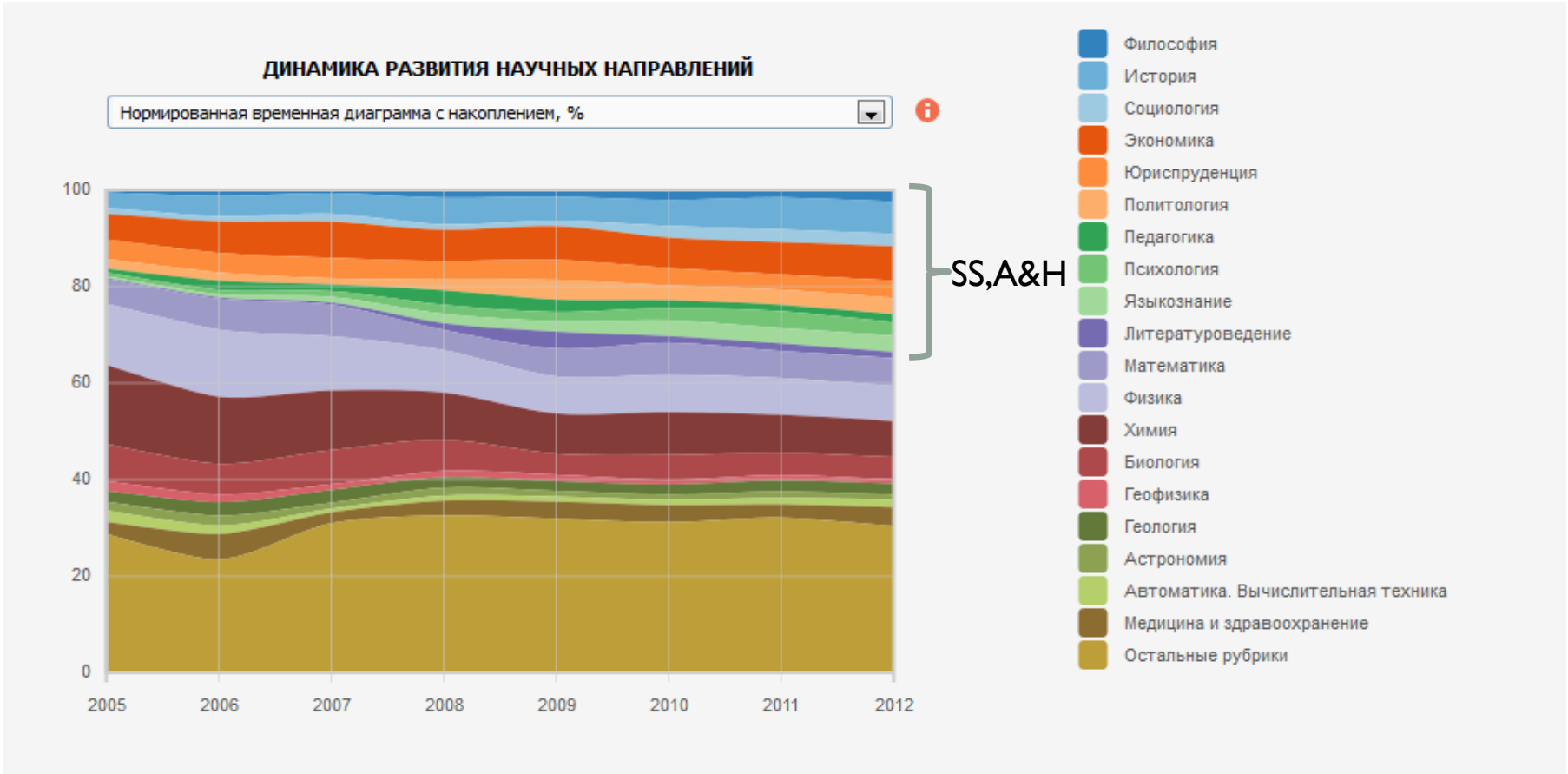


Publications of SPbSU in Biology in Web of Science and RISC



RESEARCH AREAS: (BIOCHEMISTRY MOLECULAR BIOLOGY OR GENETICS HEREDITY OR ZOOLOGY OR EVOLUTIONARY BIOLOGY OR MICROBIOLOGY OR PLANT SCIENCES OR MARINE FRESHWATER BIOLOGY OR NEUROSCIENCES NEUROLOGY OR BIOPHYSICS OR DEVELOPMENTAL BIOLOGY OR CELL BIOLOGY OR ENTOMOLOGY OR IMMUNOLOGY OR ANATOMY MORPHOLOGY OR BEHAVIORAL SCIENCES OR MYCOLOGY OR PARASITOLOGY OR BIODIVERSITY CONSERVATION)

Publications of SPbSU in Russian Index of Scientific Citation (http://elibrary.ru)



Development of international cooperation and prospective research projects

- Laboratories under supervision of invited scientists
- Joint research projects
- International recruiting
- Collaboration agreements with foreign universities

Finding new partners both at the national and international level

- Analyzing the Citing Article dataset (countries, organizations, authors) - Nanoscience & Nanotechnology

Countries 1 - 20 of 73 — Sort By: Times Cited

Rank	Country/Territory	Times Cited	Web of Science Documents	Average Cites per Document
1	USA	9 225	427	21,60
2	GERMANY (FED REP GER)	3 804	231	16,47
3	CHINA MAINLAND	3 527		
4	ENGLAND	2 089		
5	FRANCE	2 011		
6	ITALY	1 940		
7	JAPAN	1 910		
8	SPAIN	1 490		
9	RUSSIA	1 446		
10	SINGAPORE	1 120		
11	SWITZERLAND	999		
12	SOUTH KOREA	841		
13	SWEDEN	583		
14	AUSTRIA	550		
15	TAIWAN	520		
16	CZECH REPUBLIC	483		

Institutions 1 - 20 of 1 483 — Sort By: Times Cited

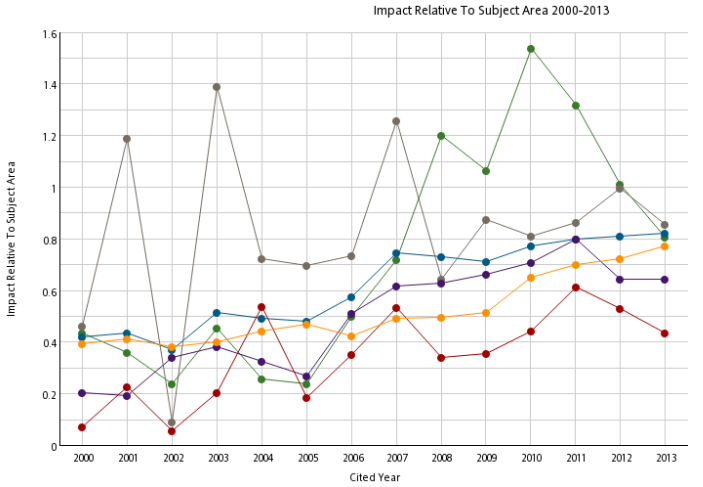
Rank	Institution	Times Cited	Web of Science Documents	Average Cites per Document
1	MIT	2 138	13	164,46
2	US DEPT ENERGY	1 779	80	22,24
3	CHINESE ACAD SCI	1 315		
4	CNRS	1 209		
5	PENNSYLVANIA COMMONWEALTH SYS HIGH EDUC	1 129		
6	PENN STATE UNIV	1 085		
7	UNIV CALIF SYSTEM	1 033		
8	ST PETERSBURG STATE UNIV	920		
9	MAX PLANCK SOCIETY	757		
10	NANYANG TECHNOL UNIV	687		
10	NANYANG TECHNOL UNIV + NIE	687		
12	TECH UNIV DRESDEN	649		
13	UNIV CAMBRIDGE	629		
14	CSIC	613		
15	SWISS FEDERAL INSTITUTES OF TECHNOLOGY DOMAIN	598		
16	UNIV CALIF BERKELEY	557		

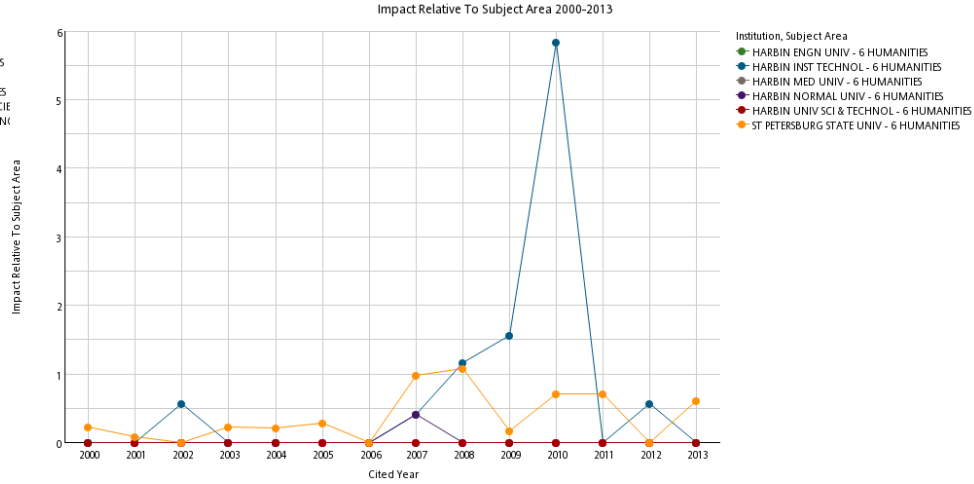
Author 1 - 20 of 7 292 — Sort By: Times Cited

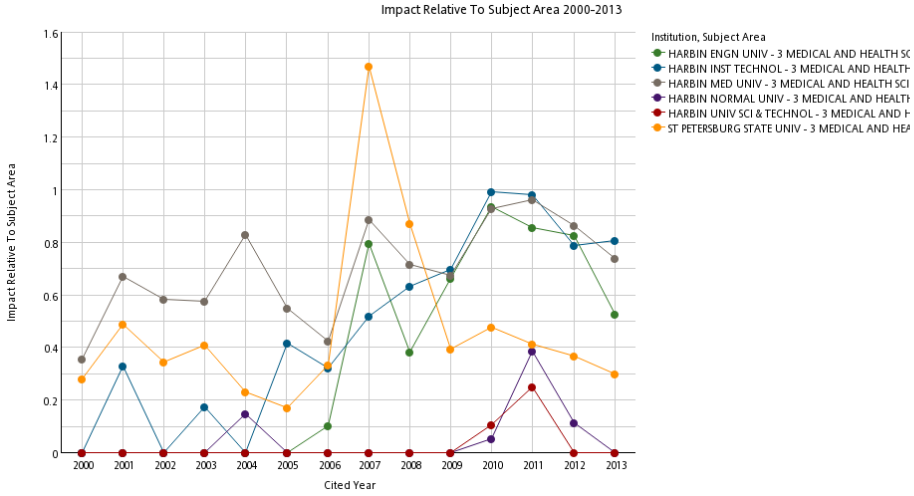
Rank	AUTHOR	Times Cited	Web of Science Documents	Average Cites per Document
1	KONG, J	1 916	5	383,20
2	JIA, XT	1 915	4	478,75
3	DRESSELHAUS, MS	1 912	4	478,00
4	REINA, A	1 816	2	908,00
5	NEZICH, D	1 761	2	880,50
6	BULOVIC, V	1 681	1	1 681,00
6	HO, J	1 681	1	1 681,00
6	SON, HB	1 681	1	1 681,00
9	GRIMES, CA	579	2	289,50
9	PAULOSE, M	579	2	289,50
9	VARGHESE, OK	579	2	289,50
12	ZHANG, H	549	6	91,50
13	KIM, KK	471	4	117,75
14	BOEY, F	463	2	231,50
15	HE, QY	452	1	452,00
15	HUANG, X	452	1	452,00

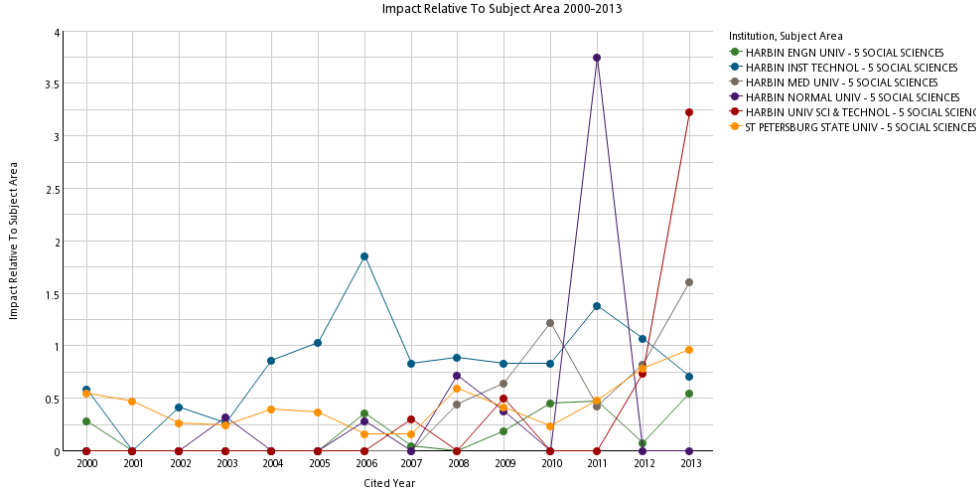
- Impact and Citation Rankings

Comparison of research competencies of universities for creation of joint research and educational programs





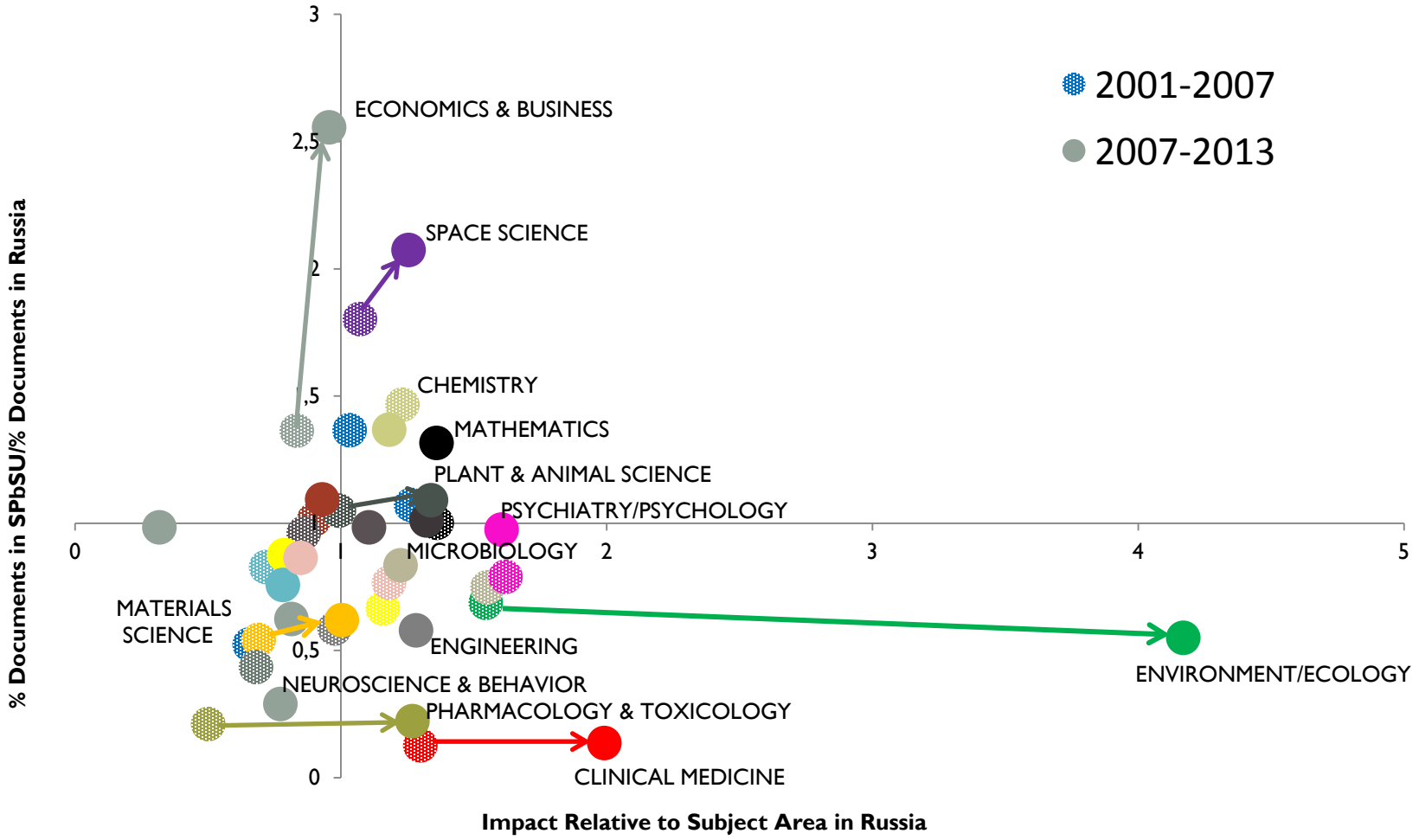




Obtaining data for reports and grant proposals

University report or proposal	Indicator	InCites report
Monitoring of dissertation councils	List of articles with journal impact factor (for each research specialization)	Source article listing
Monitoring of HEI	Number of articles	Summary report
	Number of citations in certain year of papers, published in previous 5 years	1 Year Citing All Prior Years Cumulative
	Share of international publications	Institutional comparisons
Grant proposals	Cumulative impact factor of journals for publications of organization	Source article listing
	Number of articles and citations for certain research areas	Subject rankings

Changes in the distribution and impact of SPbSU publications compared with Russian publications



The possible way of organization publication strategy analysis

$$\textit{Coefficient of publication strategy} = \frac{\textit{Category Actual/Expected Citation}}{\textit{Journal Actual/Expected Citation}}$$

- If CPS>1, it means that researchers choose the journals better than average in certain field
- If CPS<1, it means that researchers choose journals worse than average

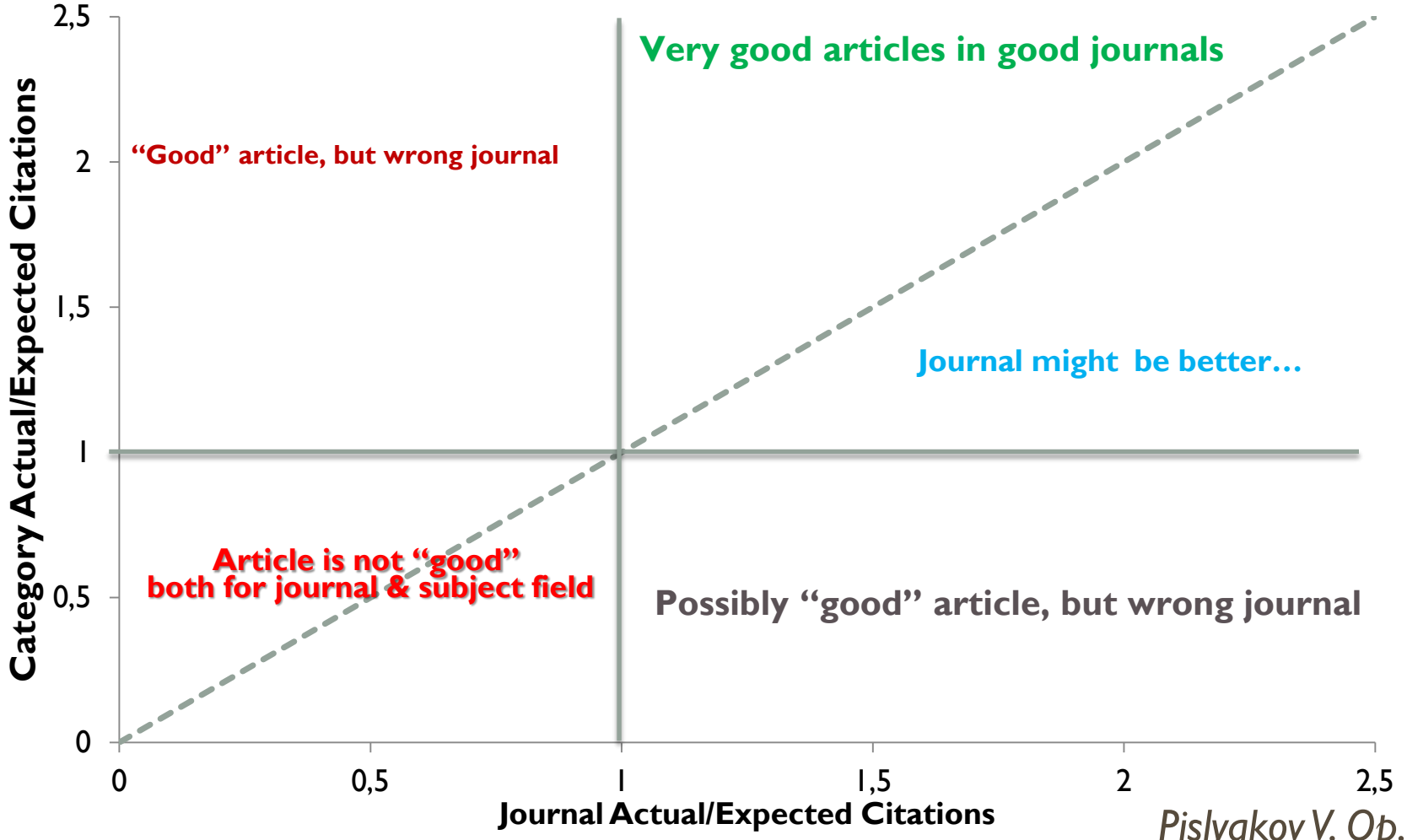
- *Pislyakov V. Bibliometric Indicators: Practical Guide. Moscow: National Training Foundation. 2014 (in Russian).*

Creating the publication strategy

Journal Actual/ Expected Citations	Category Actual/ Expected Citations	"Quality" of the article
1	1	Article "fits" to journal & subject field
1	>1	Very good article
1	<1	Possibly "good" article, but wrong journal
<1	1	Article is good, but author "over weighted" the journal
<1	<1	Article is not "good" both for journal & subject field
<1	>1	"Good" article, but wrong journal
>1	1	Journal may be better…
>1	>1	Very good article
>1	<1	Possibly "good" article, but wrong journal

Pislyakov V. Op. cit.

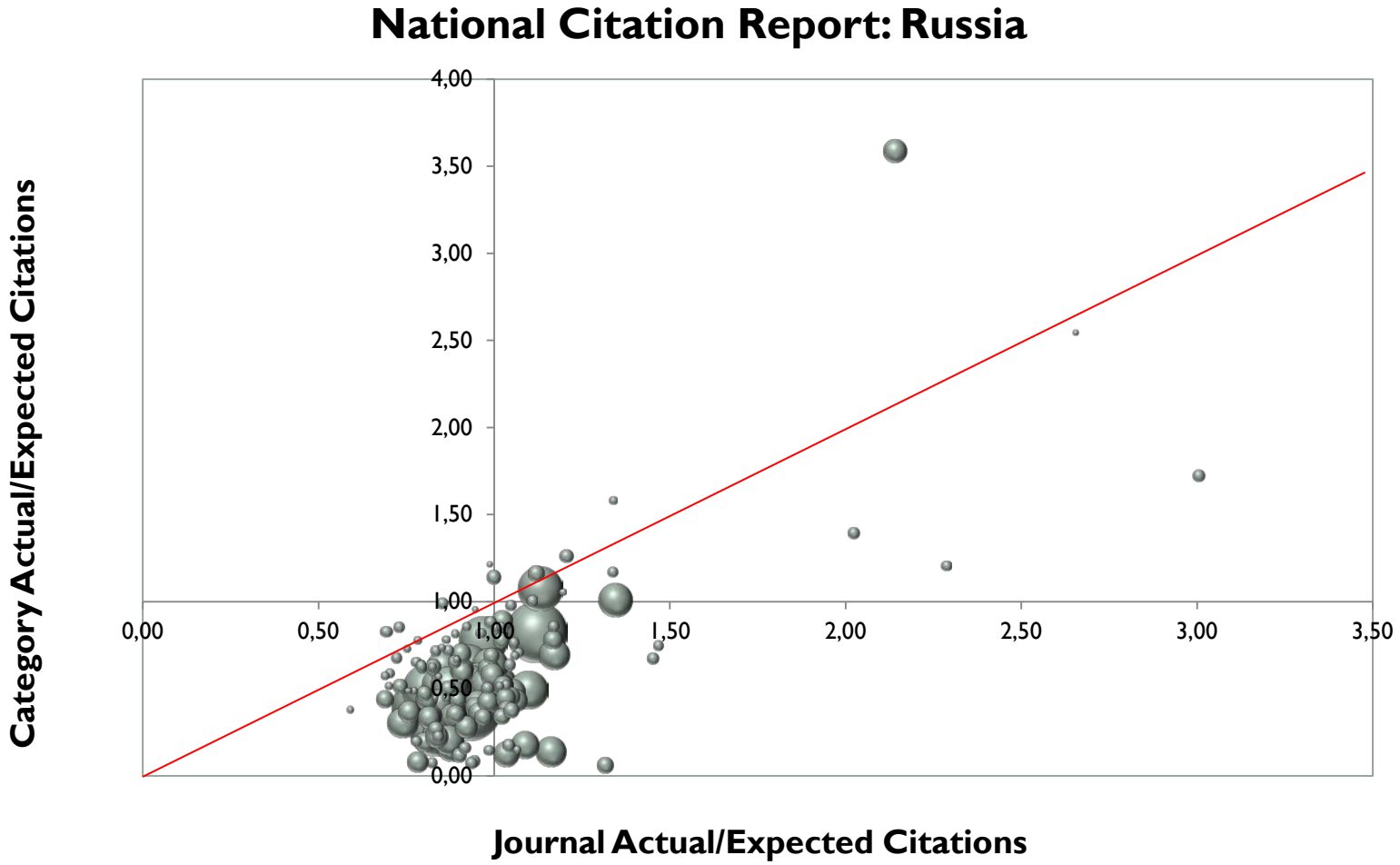
Graphic interpretation of normalized citation data for publication strategy



Pislyakov V. Op. cit.

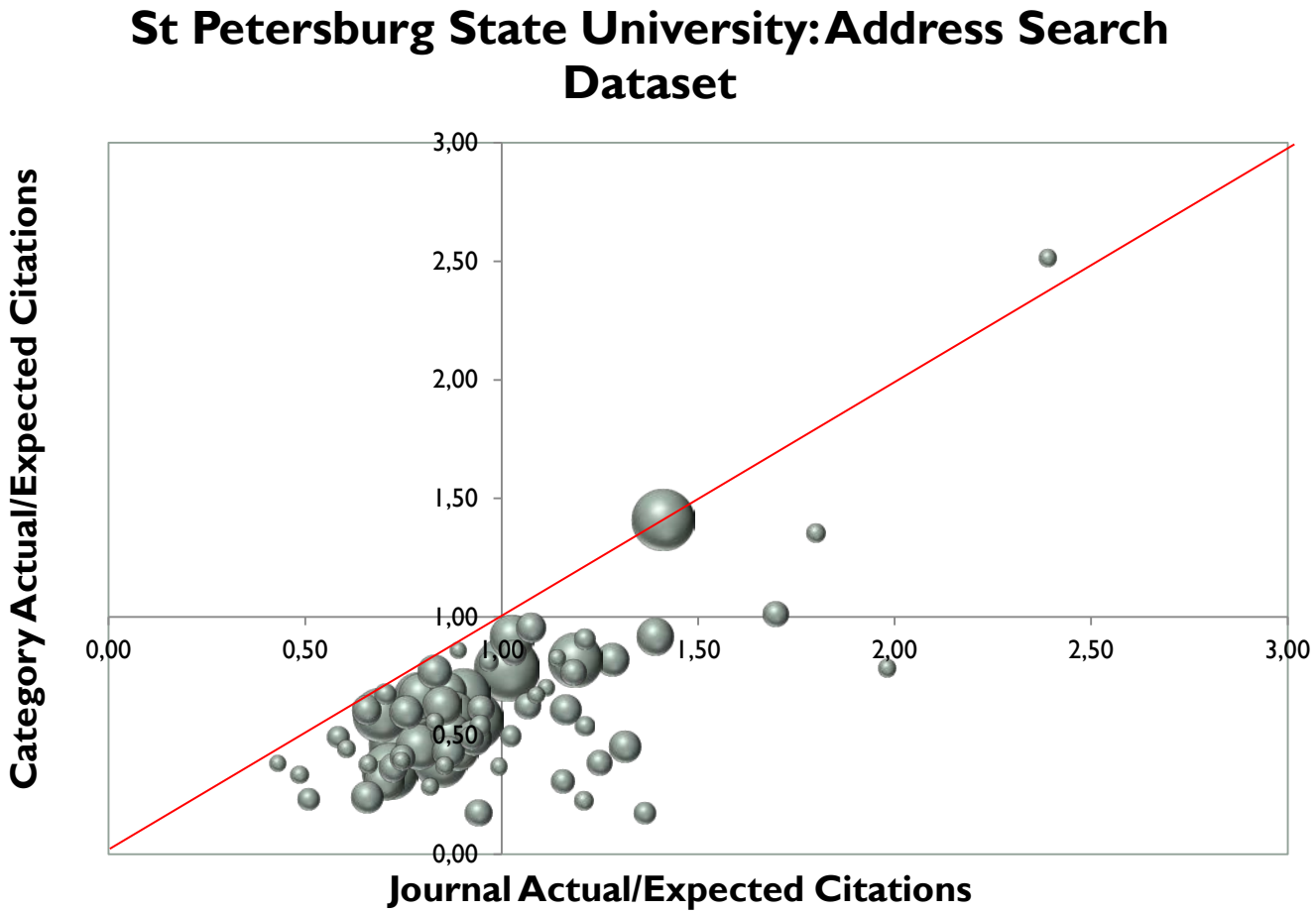
Comparison of normalized citation values for publications of Russian Federation

- Period – 2009-2014, Publication threshold – 100 documents



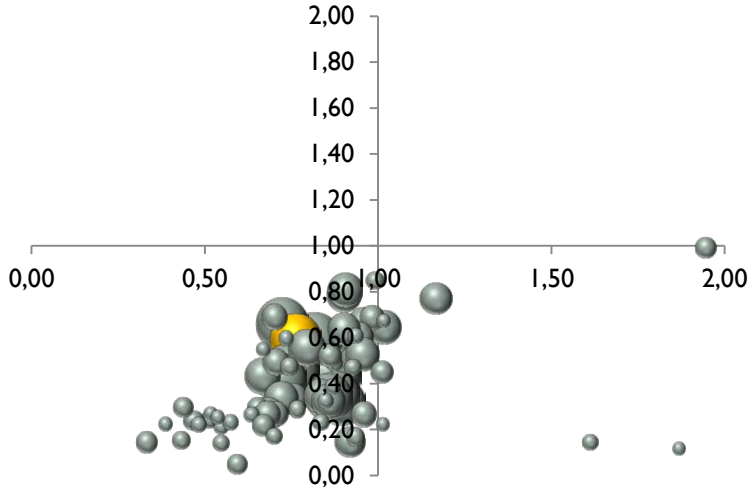
Comparison of normalized citation values for publications of SPbSU

- Period – 2009-2014, Publication threshold – 25 documents

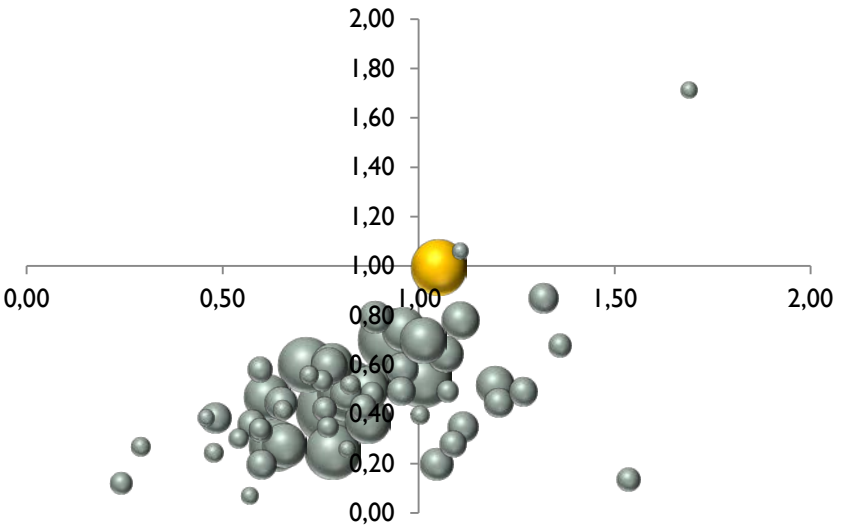


The dynamics of normalized citation values in SPbSU

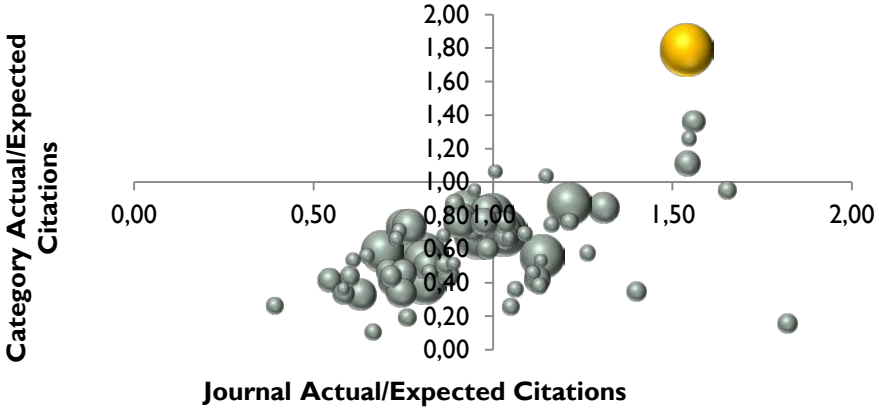
2000-2005



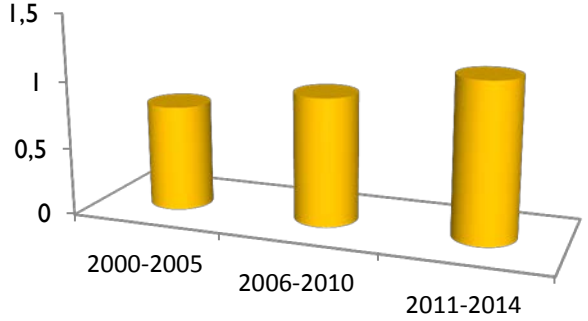
2006 - 2010



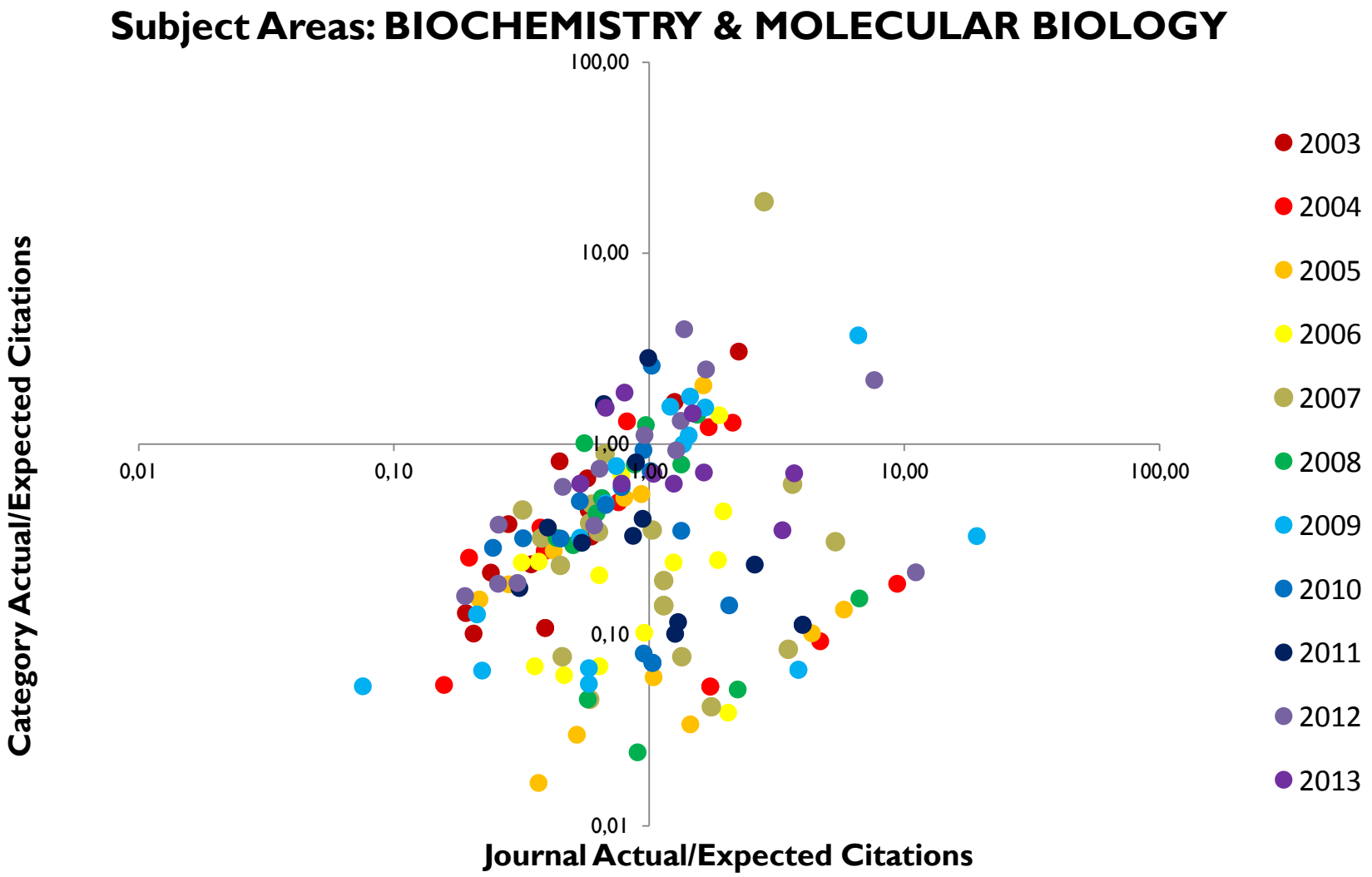
2011 - 2014



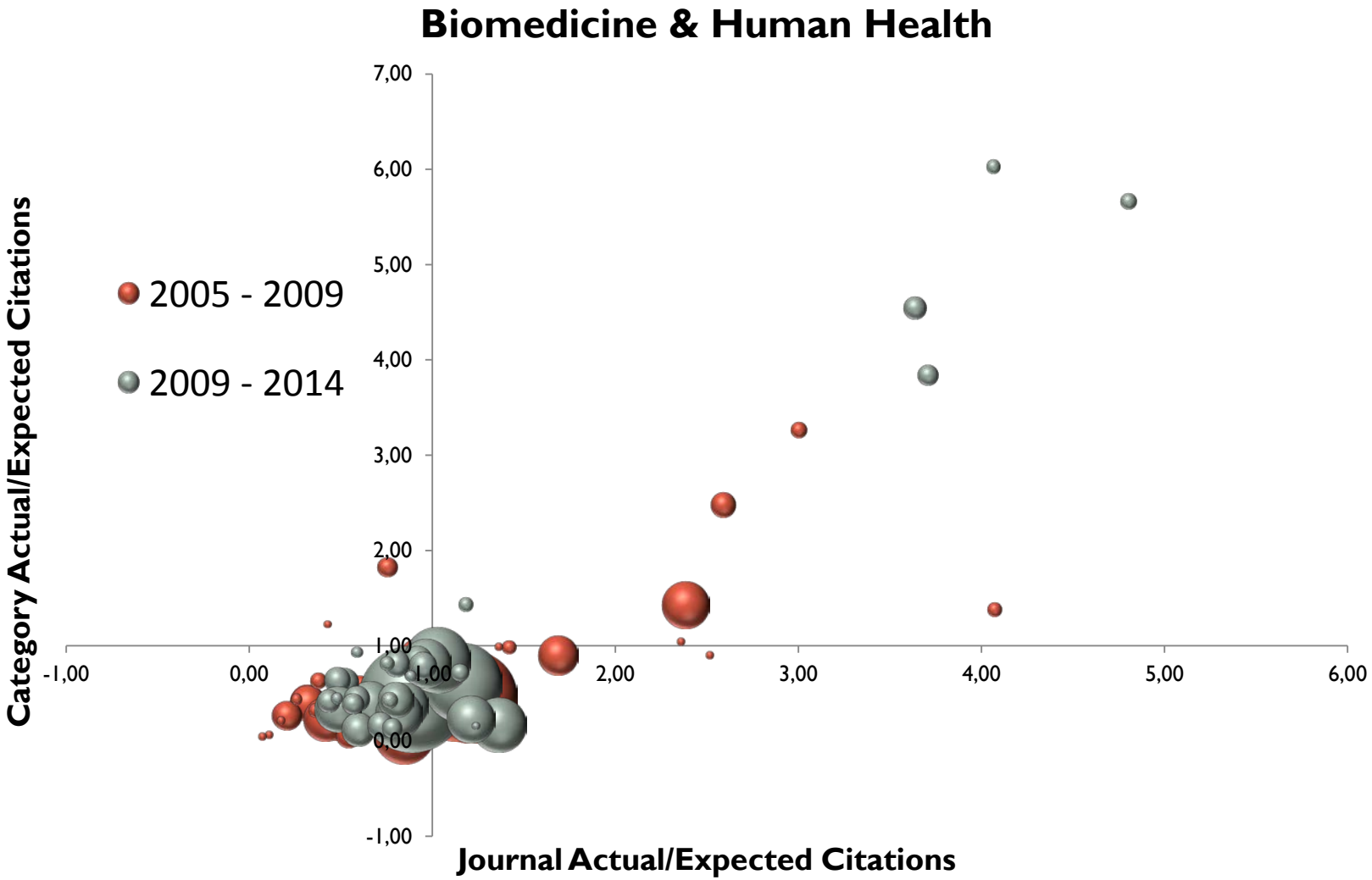
Coefficient of publication strategy for PHYSICS, MULTIDISCIPLINARY



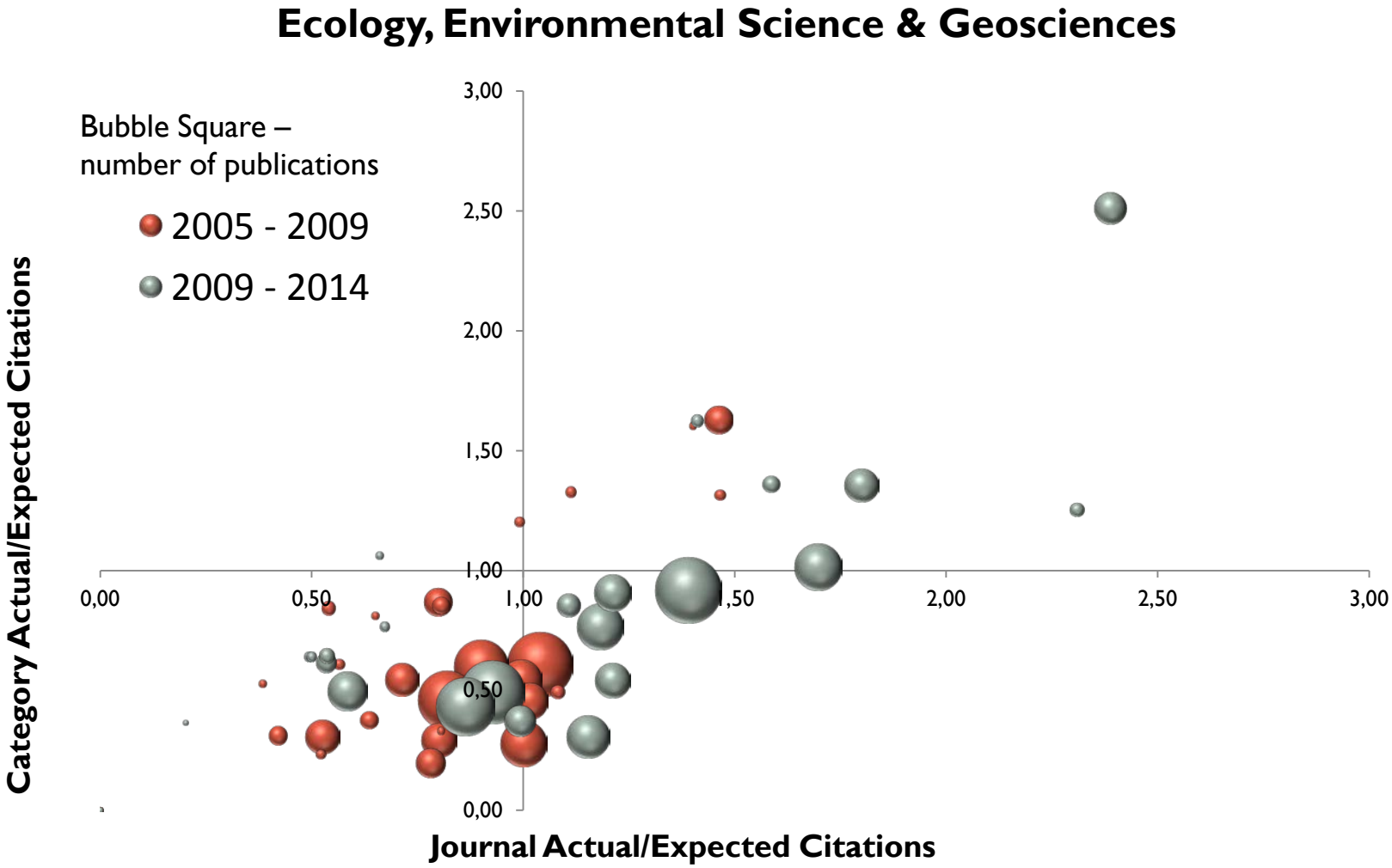
Changes in relative indices for article citation for subject area



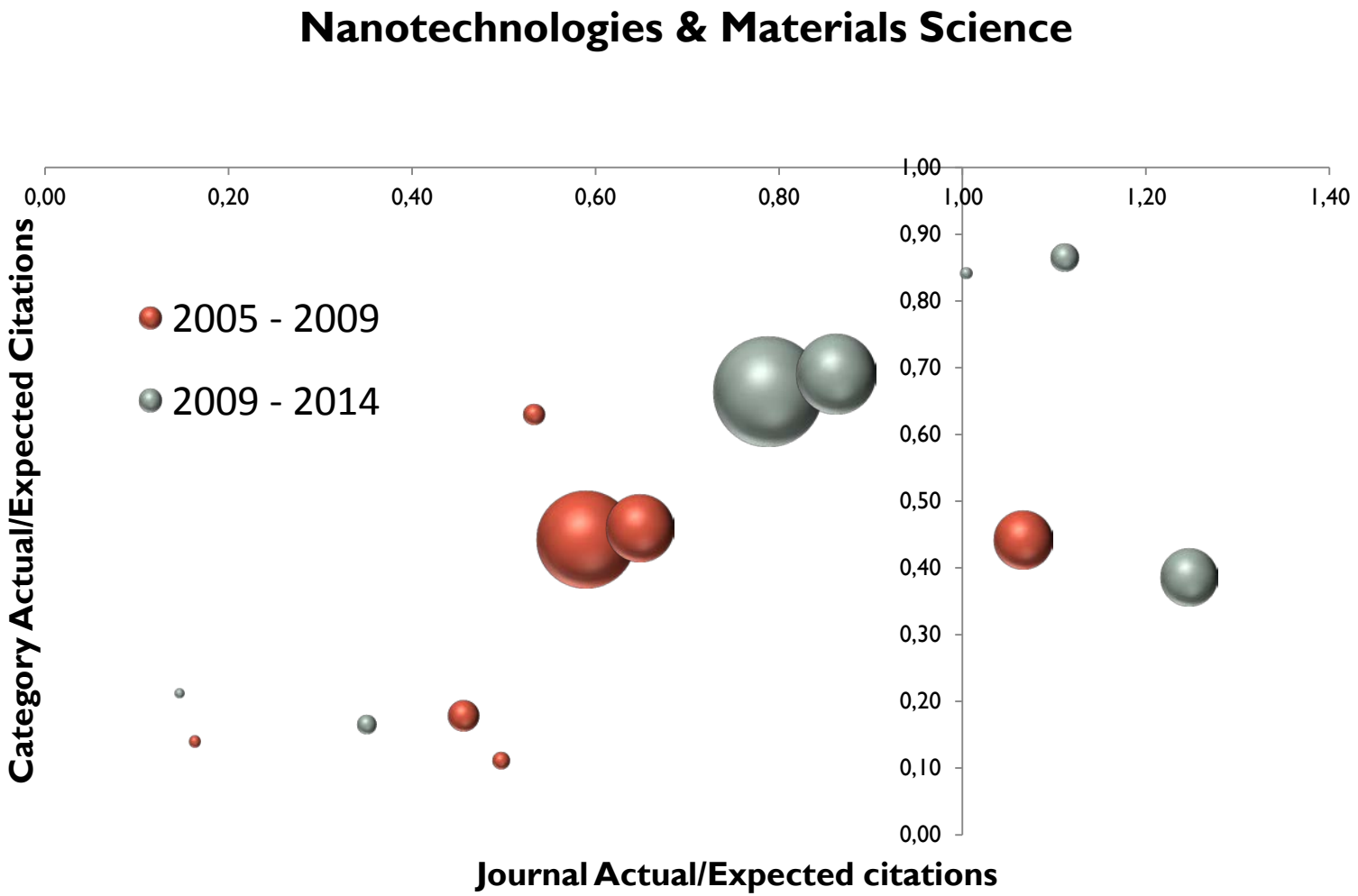
Monitoring publications in priority fields



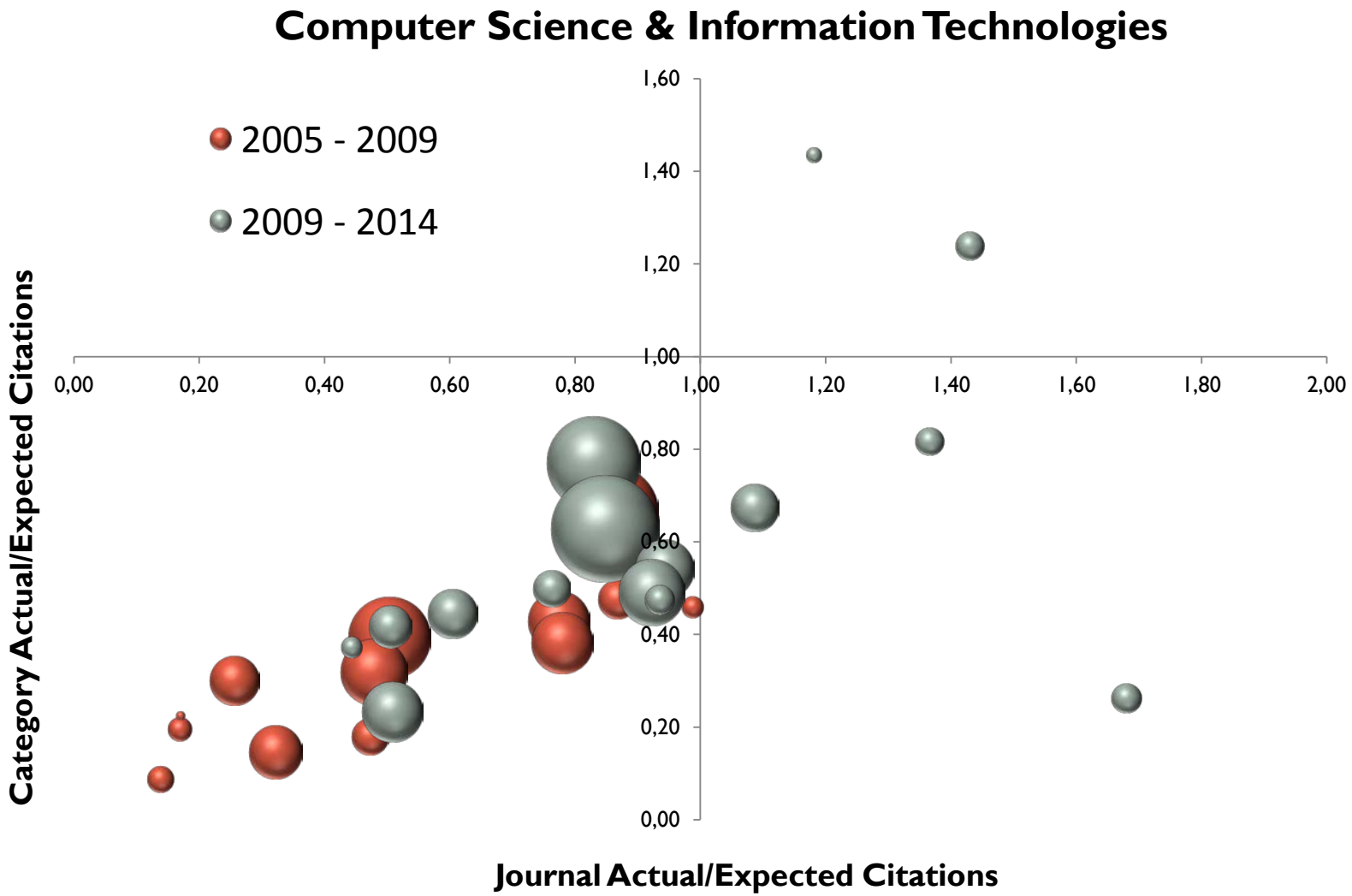
Monitoring publications in priority fields



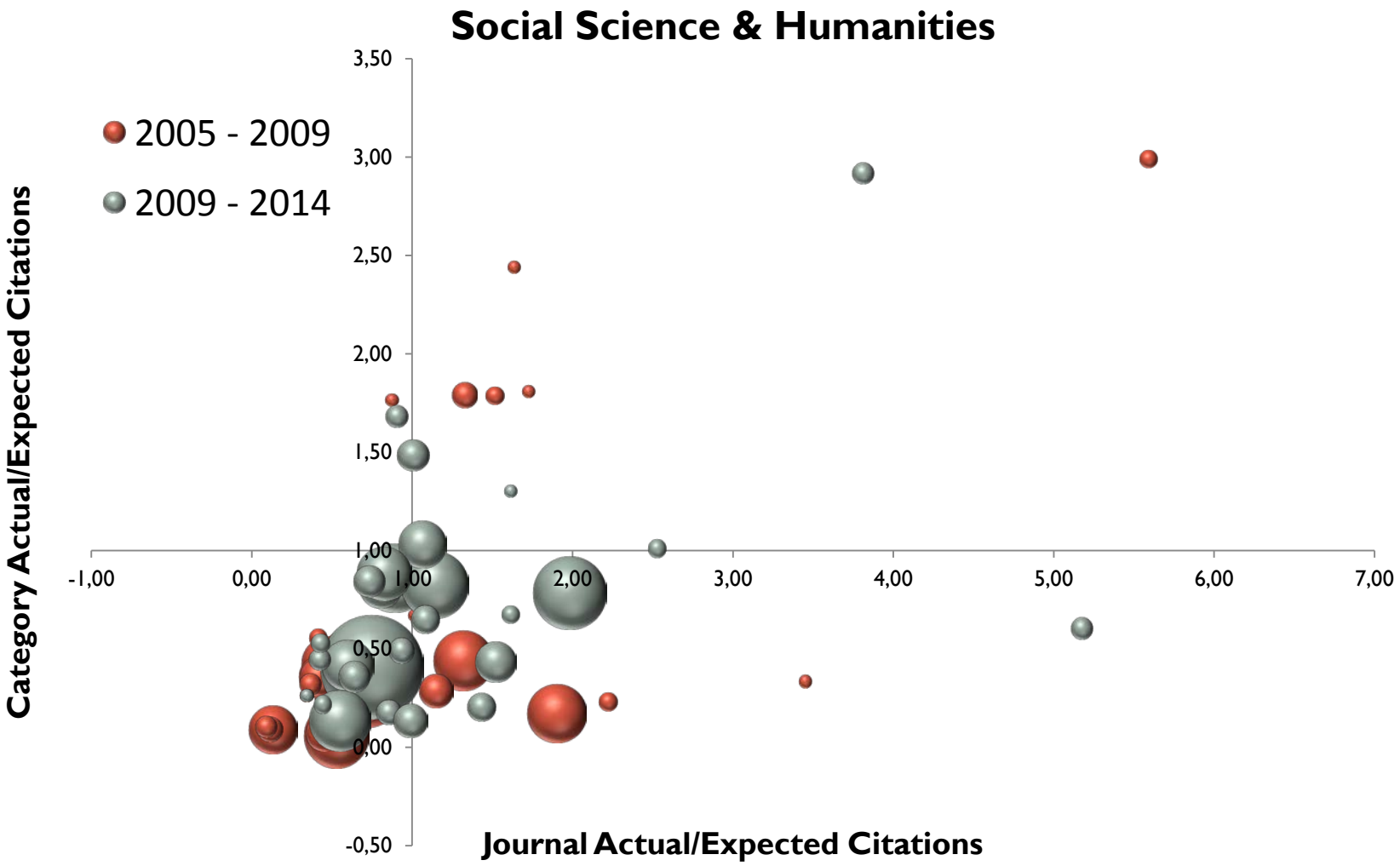
Monitoring publications in priority fields



Monitoring publications in priority fields



Monitoring publications in priority fields



The main problems in university research presentation

- Incorrect author affiliation in articles
- Incorrect selection of journals for publication of research results
- Many publications in Russian-language editions, that are not indexed in international citation databases
- Small proportion of open access publications
- Overall imbalance of research fields - weak development of the biomedical and social and humanitarian areas

The main ways to correct the situation in SPbSU

- Training for electronic resources and citation databases
- Training for Academic writing
- Stimulation of research publications - additional payment for articles in high ranking journals and good citation, compensation of publication fees
- Development of material-technical base of research in priority fields

Wish list for InCites functionalities

- To add 22 Subjects Areas (ESI) and Frascati Fields of Science (OECD) and other possible schemes for Custom reports in Research Performance Profiles, not only 251 Web of Science Subjects Areas
- To extend the InCites analytical possibilities by combination of data from Web of Science CC with national citation indices on Web of Science platform

Thank you!
Any questions?